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DATE: Thursday, December 20, 2007

Hide?	<u>Set</u> <u>Name</u>	<u>Query</u>	<u>Hit</u> <u>Count</u>
		<i>DB=PGPB,USPT; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L8	L7 and crosslink\$	9
<input type="checkbox"/>	L7	L6 and (intervertebral or scoliosis)	11
<input type="checkbox"/>	L6	(University of Southern California).as.	659
<input type="checkbox"/>	L5	L4 and crosslink\$	5
<input type="checkbox"/>	L4	L3 and (intervertebral or scoliosis)	28
<input type="checkbox"/>	L3	514/23.icls. or 514/23.ccls. or 514/456.icls. or 514/456.ccls. or 536/1.11.icls. or 536/1.11.ccls. or 549/39c.icls. or 549/396.ccls. or 549/398.icls. or 549/398.ccls. or 549/399.icls. or 549/399.ccls. or 549/406.icls. or 549/406.ccls.	6022
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<input type="checkbox"/>	L1	20040253219.did.	1

END OF SEARCH HISTORY

FILE 'HCAPLUS' ENTERED AT 15:56:10 ON 20 DEC 2007

L1 291173 S CROSSLINK?  
L2 3566 S GENEPIN OR PROANTHOCYANIDIN OR THREOSE OR (LYSYL OXIDASE)  
L3 77240 S INTERVERTEBRAL OR SPINE OR SPINAL OR SCOLEOSIS  
L4 403 S L1 AND L3  
L5 22 S L2 AND L3  
L6 11 S L1 AND L2 AND L3  
L7 187 S L4 AND (PY<2002 OR AY<2002 OR PRY<2002)  
L8 11 S L5 AND (PY<2002 OR AY<2002 OR PRY<2002)  
L9 7 S L6 AND (PY<2002 OR AY<2002 OR PRY<2002)

FILE 'STNGUIDE' ENTERED AT 15:56:25 ON 20 DEC 2007

FILE 'HCAPLUS' ENTERED AT 15:57:15 ON 20 DEC 2007

L10 3922 S GENIPIN OR PROANTHOCYANIDIN OR THREOSE OR (LYSYL OXIDASE)  
L11 23 S L10 AND L3  
L12 12 S L1 AND L10 AND L3

FILE 'STNGUIDE' ENTERED AT 15:57:21 ON 20 DEC 2007

FILE 'CAPLUS' ENTERED AT 15:57:30 ON 20 DEC 2007

L13 2366 S L10 AND (PY<2002 OR AY<2002 OR PRY<2002)  
L14 11 S L11 AND (PY<2002 OR AY<2002 OR PRY<2002)  
L15 7 S L12 AND (PY<2002 OR AY<2002 OR PRY<2002)

FILE 'HCAPLUS' ENTERED AT 16:04:58 ON 20 DEC 2007

L16 457 S SCOLIOSIS  
L17 9 S L1 AND L16  
L18 2 S L1 AND L10 AND L16  
L19 2 S L18 AND (PY<2002 OR AY<2002 OR PRY<2002)

=> file hcaplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.84	0.84

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FILE COVERS 1907 - 20 Dec 2007 VOL 147 ISS 26  
 FILE LAST UPDATED: 19 Dec 2007 (20071219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s crosslink?

L1 291173 CROSSLINK?

=> s genepin or proanthocyanidin or threose or (lysyl oxidase)

4 GENEPIN  
 1901 PROANTHOCYANIDIN  
 581 THREOSE  
 6882 LYSYL  
 126102 OXIDASE  
 1085 LYSYL OXIDASE  
 (LYSYL(W)OXIDASE)

L2 3566 GENEPIN OR PROANTHOCYANIDIN OR THREOSE OR (LYSYL OXIDASE)

=> s intervertebral or spine or spinal or scoleosis

2402 INTERVERTEBRAL  
 8448 SPINE  
 70537 SPINAL  
 0 SCOLEOSIS

L3 77240 INTERVERTEBRAL OR SPINE OR SPINAL OR SCOLEOSIS

=> s l1 and l3

L4 403 L1 AND L3

=> s l2 and l3

L5 22 L2 AND L3

=> s l1 and l2 and l3

L6 11 L1 AND L2 AND L3

=> s 14 and (PY<2002 or AY<2002 or PRY<2002)

21937278 PY<2002  
4194000 AY<2002  
3671084 PRY<2002

L7 187 L4 AND (PY<2002 OR AY<2002 OR PRY<2002)

=> s 15 and (PY<2002 or AY<2002 or PRY<2002)

21937278 PY<2002  
4194000 AY<2002  
3671084 PRY<2002

L8 11 L5 AND (PY<2002 OR AY<2002 OR PRY<2002)

=> s 16 and (PY<2002 or AY<2002 or PRY<2002)

21937278 PY<2002  
4194000 AY<2002  
3671084 PRY<2002

L9 7 L6 AND (PY<2002 OR AY<2002 OR PRY<2002)

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.60	3.44

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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Dec 18, 2007 (20071218/UP).

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	3.50

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FILE COVERS 1907 - 20 Dec 2007 VOL 147 ISS 26  
FILE LAST UPDATED: 19 Dec 2007 (20071219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s genipin or proanthocyanidin or threose or (lysyl oxidase)

369 GENIPIN  
 1901 PROANTHOCYANIDIN  
 581 THREOSE  
 6882 LYSYL  
 126102 OXIDASE  
 1085 LYSYL OXIDASE  
 (LYSYL(W)OXIDASE)  
 L10 3922 GENIPIN OR PROANTHOCYANIDIN OR THREOSE OR (LYSYL OXIDASE)

=> s l10 and l3

L11 23 L10 AND L3

=> s l1 and l10 and l3

L12 12 L1 AND L10 AND L3

=> s l13 and (PY<2002 or AY<2002 or PRY<2002)

L13 NOT FOUND

The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l14 and (PY<2002 or AY<2002 or PRY<2002)

L14 NOT FOUND

The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.60	6.10

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FILE CONTAINS CURRENT INFORMATION.  
 LAST RELOADED: Dec 18, 2007 (20071218/UP).

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	6.16

FILE 'CAPLUS' ENTERED AT 15:57:30 ON 20 DEC 2007  
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=> s l13 and (PY<2002 or AY<2002 or PRY<2002)

L13 NOT FOUND

The L-number entered could not be found. To see the definition  
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l10 and (PY<2002 or AY<2002 or PRY<2002)

369 GENIPIN  
1901 PROANTHOCYANIDIN  
581 THREOSE  
6882 LYSYL  
126102 OXIDASE  
1085 LYSYL OXIDASE  
(LYSYL(W)OXIDASE)

21937278 PY<2002  
4194000 AY<2002  
3671084 PRY<2002

L13 2366 L10 AND (PY<2002 OR AY<2002 OR PRY<2002)

=> s l11 and (PY<2002 or AY<2002 or PRY<2002)

369 GENIPIN  
1901 PROANTHOCYANIDIN  
581 THREOSE  
6882 LYSYL  
126102 OXIDASE  
1085 LYSYL OXIDASE  
(LYSYL(W)OXIDASE)

2402 INTERVERTEBRAL  
8448 SPINE  
70537 SPINAL  
0 SCOLEOSIS  
21937278 PY<2002  
4194000 AY<2002  
3671084 PRY<2002

L14 11 L11 AND (PY<2002 OR AY<2002 OR PRY<2002)

=> s l12 and (PY<2002 or AY<2002 or PRY<2002)

291173 CROSSLINK?  
369 GENIPIN  
1901 PROANTHOCYANIDIN  
581 THREOSE  
6882 LYSYL  
126102 OXIDASE  
1085 LYSYL OXIDASE  
(LYSYL(W)OXIDASE)

2402 INTERVERTEBRAL  
8448 SPINE  
70537 SPINAL  
0 SCOLEOSIS  
21937278 PY<2002  
4194000 AY<2002  
3671084 PRY<2002

L15 7 L12 AND (PY<2002 OR AY<2002 OR PRY<2002)

=> d l15 1-7 ti abs bib

L15 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

TI Direct application of non-toxic crosslinking reagents to  
 restabilize surgically destabilized intervertebral joints  
 AB A method of improving the resistance of collagenous tissue subject to  
 elevated collagenous tissue stress as a result of tissue removing surgical  
 decompression surgery, comprising contacting at least a portion of the  
 remaining collagenous tissue with an effective amount of a  
 crosslinking reagent. Efficacy of genipin in  
 crosslinking of collagen lumbar intervertebral joints of  
 calf spines is shown.  
 AN 2007:968394 CAPLUS <<LOGINID::20071220>>  
 DN 147:308334  
 TI Direct application of non-toxic crosslinking reagents to  
 restabilize surgically destabilized intervertebral joints  
 IN Hedman, Thomas P.  
 PA USA  
 SO U.S. Pat. Appl. Publ., 12pp., Cont.-in-part of U.S. Ser. No. 712,684.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2007202143	A1	20070830	US 2007-726790	20070322 <--
	US 2003049301	A1	20030313	US 2002-230671	20020829 <--
	US 2004253219	A1	20041216	US 2004-786861	20040224 <--
	US 2007183973	A1	20070809	US 2006-346464	20060202 <--
	US 2007196351	A1	20070823	US 2007-712684	20070228 <--
PRAI	US 2001-316287P	P	20010831	<--	
	US 2002-230671	A2	20020829		
	US 2003-498790P	P	20030828		
	US 2004-786861	A2	20040224		
	US 2006-346464	A2	20060202		
	US 2007-712684	A2	20070228		

L15 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Direct application of non-toxic crosslinking reagents to resist  
 progressive spinal degeneration and deformity  
 AB A method of treatment of native, non-denatured tissue to increase  
 resistance to tearing, fissuring, rupturing, and/or delamination,  
 comprising the step of: contacting at least a portion of the tissue with  
 an effective amount of a reagent that increases crosslinks in the  
 tissue. Nontoxic crosslinking reagents such as genipin  
 reduce the fatigue-related degradation of intervertebral disk tissue  
 due to repetitive, nontraumatic loading.  
 AN 2007:942278 CAPLUS <<LOGINID::20071220>>  
 DN 147:263521  
 TI Direct application of non-toxic crosslinking reagents to resist  
 progressive spinal degeneration and deformity  
 IN Hedman, Thomas P.  
 PA USA  
 SO U.S. Pat. Appl. Publ., 19pp., Cont.-in-part of U.S. Ser. No. 346,464.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2007196351	A1	20070823	US 2007-712684	20070228 <--
	US 2003049301	A1	20030313	US 2002-230671	20020829 <--
	US 2004253219	A1	20041216	US 2004-786861	20040224 <--
	US 2007183973	A1	20070809	US 2006-346464	20060202 <--
	US 2007202143	A1	20070830	US 2007-726790	20070322 <--
PRAI	US 2001-316287P	P	20010831	<--	
	US 2002-230671	A2	20020829		

US 2003-498790P	P	20030828
US 2004-786861	A2	20040224
US 2006-346464	A2	20060202
US 2007-712684	A2	20070228

L15 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

TI Natural collagens crosslinked with non-toxic crosslinking agents to resist progressive spinal deformity

AB A method of improving the resistance of collagenous tissue to mech. degradation in accordance with the present invention comprises the step of contacting at least a portion of a collagenous tissue with an effective amount of a crosslinking reagent. Methods and devices for enhancing the body's own efforts to stabilize disks in scoliotic and other progressively deforming spines by increasing collagen crosslinks. This stability enhancement is caused by reducing the bending hysteresis and increasing the elasticity and bending stiffness of progressively deforming spines, by injecting non-toxic crosslinking reagents into the convex side of disks involved in the potential or progressing deformity curve. Alternatively, contact between the tissue and the crosslinking reagent is effected by placement of a time-release delivery system directly into or onto the target tissue. Methods and devices that use crosslinking agents for increasing the permeability of an intervertebral disk, improving fluid flux to the intervertebral disk, and increasing the biol. viability of cells within the intervertebral disk are provided.

AN 2007:873614 CAPLUS <<LOGINID::20071220>>

DN 147:220111

TI Natural collagens crosslinked with non-toxic crosslinking agents to resist progressive spinal deformity

IN Hedman, Thomas P.

PA USA

SO U.S. Pat. Appl. Publ., 17pp., Cont.-in-part of U.S. Ser. No. 786,861. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2007183973	A1	20070809	US 2006-346464	20060202 <--
	US 2003049301	A1	20030313	US 2002-230671	20020829 <--
	US 2004253219	A1	20041216	US 2004-786861	20040224 <--
	US 2007196351	A1	20070823	US 2007-712684	20070228 <--
	US 2007202143	A1	20070830	US 2007-726790	20070322 <--
PRAI	US 2001-316287P	P	20010831	<--	
	US 2002-230671	A2	20020829		
	US 2003-498790P	P	20030828		
	US 2004-786861	A2	20040224		
	US 2006-346464	A2	20060202		
	US 2007-712684	A2	20070228		

L15 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

TI Non-toxic crosslinking reagents to resist curve progression in scoliosis and increase disc permeability

AB A method of improving the resistance of collagenous tissue to mech. degradation in accordance with the present invention comprises the step of contacting at least a portion of a collagenous tissue with an effective amount of a crosslinking reagent, i.e., genipin, ribose, threose, and lysyl oxidase. Methods and devices for enhancing the body's own efforts to stabilize disks in scoliotic spines by increasing collagen crosslinks. This stability enhancement is caused by reducing the bending hysteresis and increasing the bending stiffness of scoliotic spines, by injecting



non-toxic crosslinking reagents into the convex side of disks involved in the scoliotic curve. Alternatively, contact between the tissue and the crosslinking reagent is affected by placement of a time-release delivery system directly into or onto the target tissue. Methods and devices that use crosslinking agents for increasing the permeability of an intervertebral disk, improving fluid flux to the intervertebral disk, and increasing the biol. viability of cells within the intervertebral disk are provided.

AN 2004:1080506 CAPLUS <<LOGINID::20071220>>  
 DN 142:62696  
 TI Non-toxic crosslinking reagents to resist curve progression in scoliosis and increase disc permeability  
 IN Hedman, Thomas P.  
 PA University of Southern California, USA  
 SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 230,671.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004253219	A1	20041216	US 2004-786861	20040224 <--
	US 2003049301	A1	20030313	US 2002-230671	20020829 <--
	AU 2004268628	A1	20050310	AU 2004-268628	20040827
	CA 2536415	A1	20050310	CA 2004-2536415	20040827
	WO 2005020862	A1	20050310	WO 2004-US28039	20040827
	W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	
	RW:			BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
	EP 1660001	A1	20060531	EP 2004-782506	20040827
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	JP 2007504162	T	20070301	JP 2006-524909	20040827
	US 2007183973	A1	20070809	US 2006-346464	20060202 <--
	KR 2007058369	A	20070608	KR 2006-704202	20060228
	US 2007196351	A1	20070823	US 2007-712684	20070228 <--
	US 2007202143	A1	20070830	US 2007-726790	20070322 <--
PRAI	US 2001-316287P	P	20010831	<--	
	US 2002-230671	A2	20020829		
	US 2003-498790P	P	20030828		
	US 2004-786861	A	20040224		
	WO 2004-US28039	W	20040827		
	US 2006-346464	A2	20060202		
	US 2007-712684	A2	20070228		

L15 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

TI Use of non-toxic crosslinking reagents to improve fatigue resistance and reduce mechanical degradation of intervertebral disc and other collagenous tissues

AB A method of improving the resistance of collagenous tissue to mech. degradation in accordance with the present invention comprises the step of contacting at least a portion of a collagenous tissue with an effective amount of a crosslinking reagent. The crosslinking reagent includes a crosslinking agent such as genipin and/or proanthocyanidin. Further, the crosslinking reagent may include a crosslinking agent in a carrier medium.

The collagenous tissue to be contacted with the crosslinking reagent is preferably a portion of an intervertebral disk or articular cartilage. The contact between the tissue and the crosslinking reagent is effected by injections directly into the select tissue using a needle. Alternatively, contact between the tissue and the crosslinking reagent is effected by placement of a time-release delivery system such as a gel or ointment, or a treated membrane or patch directly into or onto the target tissue. Contact may also be effected by, for instance, soaking.

AN 2003:202381 CAPLUS <<LOGINID::20071220>>

DN 138:226799

TI Use of non-toxic crosslinking reagents to improve fatigue resistance and reduce mechanical degradation of intervertebral disc and other collagenous tissues

IN Hedman, Thomas P.

PA University of Southern California, USA

SO PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2003020031	A1	20030313	WO 2002-US27677	20020829 <--	
	W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
	RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
	CA 2458821	A1	20030313	CA 2002-2458821	20020829 <--	
	AU 2002335683	A1	20030318	AU 2002-335683	20020829 <--	
	EP 1432312	A1	20040630	EP 2002-770446	20020829 <--	
	R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK		
	JP 2005501874	T	20050120	JP 2003-524354	20020829 <--	
	CN 1578624	A	20050209	CN 2002-821684	20020829 <--	
PRAI	US 2001-316287P	P	20010831 <--			
	WO 2002-US27677	W	20020829			

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

TI Effect of age on pyridinoline and pentosidine matrix cross-links in the desert sand rat intervertebral disk

AB Spondylosis in the desert sand rat (*Psammomys obesus*) has been studied as a model for intervertebral disk degeneration. Reducing sugars, which react with protein amino groups to form a diverse group of moieties with fluorescence and crosslinking properties, have been implicated in the structural and functional alterations of proteins that occur during aging and long-term diabetes. This study was undertaken to determine the changes in two matrix cross-links of the intervertebral disk and to study their association with aging. Two types of cross-links were studied: the physiol. cross-link, pyridinoline, which is initiated by lysyl oxidase; and the non-enzymically initiated cross-link, pentosidine. A significant increase in pentosidine, but not pyridinoline, was observed in the intervertebral disk with aging. Radiol., histol. and biochem. findings support a hypothesis that subchondral bone responses, marked by increased bone d., contribute to alterations in the intervertebral disk. Cross-link changes in

the structural proteins of the disk may contribute to the progressive fibrocartilage degradation typical of intervertebral disk disease as an effect of age.

AN 1995:212018 CAPLUS <<LOGINID::20071220>>  
DN 122:53235  
TI Effect of age on pyridinoline and pentosidine matrix cross-links in the  
desert sand rat intervertebral disk  
AU Pokharna, Hemlata K.; Boja, Betty; Monnier, Vincent; Moskowitz, Roland W.  
CS School Medicine, Case Western Reserve University, Cleveland, OH, 44106,  
USA  
SO Glycosylation & Disease (1994), 1(3), 185-90  
CODEN: GLDIEI; ISSN: 0969-3653  
DT Journal  
LA English

L15 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Neonatal deaths and pulmonary dysplasia due to D-penicillamine in the rat  
AB D-penicillamine [52-67-5], Added to a low-Cu diet through pregnancy or  
given by gavage to pregnant rats which were on a Cu-deficient or a normal  
diet, produced fetal resorptions and malformations. Doses of 300-400  
mg/day for 6 days (days 9-14 of gestation) with a diet normal for Cu  
prevented maternal weight gain and at 350 or 400 mg/day caused fetal death on  
day 16 or 17. Forty percent of offspring had tracheobronchomegaly and 42%  
had cystic lungs. Associated abnormalities included pleural hemorrhages,  
dilated esophagi, and unaerated lungs. The lungs had large, poorly  
formed, thick-walled acini without partitioning and a thick rim of  
connective tissue around vessels and bronchi. At the higher doses, all  
members of 1 of 12 litters had angulation of the spine and half  
the members of another litter had cleft palates. A postulated mechanism  
for these alterations in pulmonary connective tissue productive of  
malformations which model human tracheobronchomegaly and cystic lungs, is  
interference with lysyl oxidase, a Cu-requiring  
enzyme, which crosslinks elastin.

AN 1982:574666 CAPLUS <<LOGINID::20071220>>  
DN 97:174666  
OREF 97:28970h,28971a  
TI Neonatal deaths and pulmonary dysplasia due to D-penicillamine in the rat  
AU Kilburn, Kaye H.; Hess, Rex A.  
CS Mount Sinai Sch. Med., New York, NY, 10029, USA  
SO Teratology (1982), 26(1), 1-9  
CODEN: TJADAB; ISSN: 0040-3709  
DT Journal  
LA English

=> d his

(FILE 'HOME' ENTERED AT 15:53:37 ON 20 DEC 2007)

FILE 'HCAPLUS' ENTERED AT 15:56:10 ON 20 DEC 2007

L1 291173 S CROSSLINK?  
L2 3566 S GENEPIN OR PROANTHOCYANIDIN OR THREOSE OR (LYSYL OXIDASE)  
L3 77240 S INTERVERTEBRAL OR SPINE OR SPINAL OR SCOLEOSIS  
L4 403 S L1 AND L3  
L5 22 S L2 AND L3  
L6 11 S L1 AND L2 AND L3  
L7 187 S L4 AND (PY<2002 OR AY<2002 OR PRY<2002)  
L8 11 S L5 AND (PY<2002 OR AY<2002 OR PRY<2002)  
L9 7 S L6 AND (PY<2002 OR AY<2002 OR PRY<2002)

FILE 'STNGUIDE' ENTERED AT 15:56:25 ON 20 DEC 2007

FILE 'HCAPLUS' ENTERED AT 15:57:15 ON 20 DEC 2007

L10 3922 S GENIPIN OR PROANTHOCYANIDIN OR THREOSE OR (LYSYL OXIDASE)

L11 23 S L10 AND L3  
L12 12 S L1 AND L10 AND L3

FILE 'STNGUIDE' ENTERED AT 15:57:21 ON 20 DEC 2007

FILE 'CAPLUS' ENTERED AT 15:57:30 ON 20 DEC 2007

L13 2366 S L10 AND (PY<2002 OR AY<2002 OR PRY<2002)  
L14 11 S L11 AND (PY<2002 OR AY<2002 OR PRY<2002)  
L15 7 S L12 AND (PY<2002 OR AY<2002 OR PRY<2002)

=> log hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	86.61	92.77
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-5.46	-5.46

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 15:58:15 ON 20 DEC 2007

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAEXO1623

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
SESSION RESUMED IN FILE 'CAPLUS' AT 16:03:33 ON 20 DEC 2007  
FILE 'CAPLUS' ENTERED AT 16:03:33 ON 20 DEC 2007  
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	86.61	92.77
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-5.46	-5.46

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	87.55	93.71
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-5.46	-5.46

FILE 'HCAPLUS' ENTERED AT 16:04:58 ON 20 DEC 2007  
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE COVERS 1907 - 20 Dec 2007 VOL 147 ISS 26  
FILE LAST UPDATED: 19 Dec 2007 (20071219/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s scoliosis

L16 457 SCOLIOSIS

=> s l1 and l16

L17 9 L1 AND L16

=> s l1 and l10 and l16

L18 2 L1 AND L10 AND L16

=> s l18 and (PY<2002 or AY<2002 or PRY<2002)

21937278 PY<2002  
4194000 AY<2002  
3671084 PRY<2002

L19 2 L18 AND (PY<2002 OR AY<2002 OR PRY<2002)

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
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	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-5.46

FILE 'STNGUIDE' ENTERED AT 16:05:04 ON 20 DEC 2007  
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Dec 18, 2007 (20071218/UP).

=> d l17 1-9 ti

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L17 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Natural collagens crosslinked with non-toxic crosslinking agents to resist progressive spinal deformity

L17 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Polymer compositions comprising a antifibrotic or an antiinfective agent

L17 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Method for the treatment of connective tissue diseases

L17 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
 TI Mutations Near Amino End of  $\alpha 1(I)$  Collagen Cause Combined  
 Osteogenesis Imperfecta/Ehlers-Danlos Syndrome by Interference with  
 N-propeptide Processing

L17 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
 TI Corrosion of spinal implants retrieved from patients with  
 scoliosis

L17 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
 TI Non-toxic crosslinking reagents to resist curve progression in  
 scoliosis and increase disc permeability

L17 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
 TI The kyphoscoliotic type of Ehlers-Danlos syndrome (type VI): differential  
 effects on the hydroxylation of lysine in collagens I and II revealed by  
 analysis of cross-linked telopeptides from urine

L17 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
 TI Collagen crosslinking and cartilage glycosaminoglycan  
 composition in normal and scoliotic chickens

L17 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
 TI Scoliosis in chickens: responsiveness of severity and incidence  
 to dietary copper

=> d l17 2 3 5 8 9 ti abs bib

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L17 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
 TI Polymer compositions comprising a antifibrotic or an antiinfective agent  
 AB Polymer compns. comprise a therapeutic agents such as antifibrotic or an  
 antiinfective agent. Microspheres of mycophenolic acid-PVA were prepared  
 and the average particle size distribution was determined  
 AN 2005:493532 HCAPLUS <<LOGINID::20071220>>  
 DN 143:32339  
 TI Polymer compositions comprising a antifibrotic or an antiinfective agent  
 IN Hunter, William L.; Gravett, David M.; Toleikis, Philip M.; Maiti, Arpita;  
 Liggins, Richard T.; Takacs-Cox, Aniko; Avelar, Rui; Loss, Troy A. E.  
 PA Angiotech International A.-G., Switz.  
 SO PCT Int. Appl., 1945 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English

FAN.CNT 19

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005051452	A2	20050609	WO 2004-US39389	20041122
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				
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	GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				
	LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				
	NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,				
	TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				
	AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,				
	EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO,				
	SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,				
	NE, SN, TD, TG				
	US 2005181977	A1	20050818	US 2004-986231	20041110

AU 2004293071	A1	20050609	AU 2004-293071	20041122
CA 2536181	A1	20050609	CA 2004-2536181	20041122
EP 1684819	A2	20060802	EP 2004-816983	20041122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				
CN 1878514	A	20061213	CN 2004-80033341	20041122
JP 2007517543	T	20070705	JP 2006-541670	20041122
US 2005149158	A1	20050707	US 2004-409	20041129
US 2005175662	A1	20050811	US 2004-451	20041129
US 2005175661	A1	20050811	US 2004-999205	20041129
US 2005186243	A1	20050825	US 2004-97	20041129
US 2005186242	A1	20050825	US 2004-999204	20041129
US 2005191331	A1	20050901	US 2004-1419	20041130
US 2005175663	A1	20050811	US 2004-1791	20041202
US 2005181008	A1	20050818	US 2004-1786	20041202
US 2005181011	A1	20050818	US 2004-1792	20041202
US 2005143817	A1	20050630	US 2004-6899	20041207
US 2005177103	A1	20050811	US 2004-6314	20041207
US 2005177225	A1	20050811	US 2004-6895	20041207
US 2005181004	A1	20050818	US 2004-6289	20041207
US 2005281883	A1	20051222	US 2005-118088	20050428
WO 2006078282	A2	20060727	WO 2005-US15036	20050428
WO 2006078282	A3	20070118		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
WO 2006083260	A2	20060810	WO 2005-US14906	20050428
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
CN 101080246	A	20071128	CN 2005-80021739	20050428
US 2006147492	A1	20060706	US 2006-343809	20060131
IN 2006KN01694	A	20070511	IN 2006-KN1694	20060619
IN 2006KN01695	A	20070511	IN 2006-KN1695	20060619
IN 2006KN01698	A	20070511	IN 2006-KN1698	20060619
KR 2007033981	A	20070327	KR 2006-725027	20061128
IN 2006CN04364	A	20070810	IN 2006-CN4364	20061128
PRAI US 2003-523908P	P	20031120		
US 2003-525226P	P	20031124		
US 2003-526541P	P	20031203		
US 2004-566569P	P	20040428		
US 2004-586861P	P	20040709		
US 2004-611077P	P	20040917		
US 2004-986231	A	20041110		
US 2003-518785P	P	20031110		

US 2003-524023P	P	20031120
US 2004-578471P	P	20040609
US 2004-582833P	P	20040624
US 2004-986230	A	20041110
US 2004-986450	A1	20041110
WO 2004-US39183	W	20041122
WO 2004-US39346	W	20041122
WO 2004-US39353	W	20041122
WO 2004-US39389	W	20041122
WO 2005-US14906	W	20050428
WO 2005-US15036	W	20050428

L17 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Method for the treatment of connective tissue diseases

AB Method is disclosed for the treatment of collagen diseases. The invention relates to a method for the treatment of connective tissue diseases associated with weakening or damage of collagen tissue due to disease, injury or mech. stress by the application of a proteoglycan and electromagnetic radiation. The treatment phys. and visually repairs the weakened or damaged tissue in vivo or in vitro and may be used on any animal having and collagen tissue.

AN 2005:405328 HCAPLUS <<LOGINID::20071220>>

DN 142:423912

TI Method for the treatment of connective tissue diseases

IN Pineau, Mitchell; Birchem, Gerald; Bon, Edwin

PA Visionary Biomedical, Inc., USA

SO PCT Int. Appl., 13 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005041662	A1	20050512	WO 2003-US34775	20031103
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003286832	A1	20050519	AU 2003-286832	20031103
PRAI	US 2003-677237	A	20031003		
	WO 2003-US34775	W	20031103		

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Corrosion of spinal implants retrieved from patients with scoliosis

AB Spinal implants retrieved from 11 patients with scoliosis were examined All the implants were posterior instrumentation systems made of 316L stainless steel and composed of rods, hooks, and crosslink connectors. Corrosion was classified into grades 0 to 3 based on macroscopic findings of the rod surface at the junction of each hook or crosslink connector. Grade 0 was defined as no sign of corrosion, grade 1 as surface discoloration, grade 2 as superficial metal loss, and grade 3 as severe metal loss. The depths and characteristics of metal loss areas were examined Spinal implants showed more corrosion after long-term implantation than after short-term implantation. Corrosion was seen on many of the rod junctions (66.2%) after long-term implantation,



but there was no difference between the junction at the hook and those at the crosslink connector. It is thought that intergranular corrosion and fretting contributed to the corrosion of implants. The current study demonstrated that corrosion takes place at many of the rod junctions in long-term implantation. The authors recommend removal of the spinal implants after solid bony union.

AN 2005:297335 HCAPLUS <<LOGINID::20071220>>

DN 144:198449

TI Corrosion of spinal implants retrieved from patients with scoliosis

AU Akazawa, Tsutomu; Minami, Shohei; Takahashi, Kazuhisa; Kotani, Toshiaki; Hanawa, Takao; Moriya, Hideshige

CS Department of Orthopedic Surgery, Graduate School of Medicine, Chiba University, 1-8-1 Inohana, Chuo-ku, Chiba, 260-8670, Japan

SO Journal of Orthopaedic Science (2005), 10(2), 200-205

CODEN: JOSCSF; ISSN: 0949-2658

PB Springer Tokyo

DT Journal

LA English

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Collagen crosslinking and cartilage glycosaminoglycan composition in normal and scoliotic chickens

AB The amts. of lysine-derived crosslinks in collagens from tendon, cartilage, intervertebral disk, and bone and changes in the composition of sternal cartilage glycosaminoglycans were estimated in two lines of chickens, a control-isogenic line and a line that develops scoliosis. In the scoliotic line, scoliosis first appears at 3-4 wk and progressively increases in severity and incidence so that 90% of the birds express the lesion by week 10. It was reported previously that cartilage, tendon, and bone collagens from scoliotic birds are more soluble than corresponding collagens from normal birds. Herein, collagen crosslinking and altered proteoglycan metabolism are examined as possible mechanisms for the differences in collagen solubility. At 1 wk of age, there were fewer reducible crosslinking amino acids (hydroxylsinonorleucine, dihydroxylysine, and lysinonorleucine) in collagens from sternal cartilage and tendon in the scoliotic line than in the isogenic line. However, by week 3 and at weeks 5 or 7 values were similar in both groups. The amts. of hydroxypyridinium in vertebral bone and intervertebral disk collagen were also similar in both groups of birds. Consequently, differences in collagen crosslinking do not appear to be a persistent developmental defect underlying the expression of scoliosis in the model. However, differences were observed in cartilage proteoglycans and glycosaminoglycans from the scoliotic line that were not present in cartilage from the isogenic line. The average mol. weight of the uronide-containing glycosaminoglycans was 30% less in the scoliotic line than in the isogenic line, i.e., 12,000 compared to 18,000. The size distribution of cartilage proteoglycans from the scoliotic line also differed from that of proteoglycans from the isogenic line. An overly sulfated chondroitin also appeared to be a minor component of the glycosaminoglycans in cartilage from the scoliotic line. This chondroitin was not observed in cartilage from the isogenic line of chickens.

AN 1989:21883 HCAPLUS <<LOGINID::20071220>>

DN 110:21883

TI Collagen crosslinking and cartilage glycosaminoglycan composition in normal and scoliotic chickens

AU Greve, Carl; Opsahl, William; Reiser, Karen; Abbott, Ursula; Kenney, Cristina; Benson, Daniel; Rucker, Robert

CS Dep. Nutr., Univ. California, Davis, CA, 95616, USA

SO Biochimica et Biophysica Acta, General Subjects (1988), 967(2), 275-83

CODEN: BBGSB3; ISSN: 0304-4165

DT Journal

LA English

L17 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Scoliosis in chickens: responsiveness of severity and incidence to dietary copper

AB The severity and incidence of spinal lesions were manipulated in a line of chickens susceptible to scoliosis by varying their dietary intake of Cu. A decrease in expression of the lesion was related to increased intake of Cu. The change in expression, however, appeared to be related only indirectly to the defects in collagen crosslinking, maturation, and deposition known to be associated with dietary Cu deficiency. Thus, a dietary constituent in the range of normal intakes may act as an environmental factor in the expression of scoliosis.

AN 1984:489373 HCAPLUS <<LOGINID::20071220>>

DN 101:89373

TI Scoliosis in chickens: responsiveness of severity and incidence to dietary copper

AU Opsahl, William; Abbott, Ursula; Kenney, Cristina; Rucker, Robert

CS Dep. Nutr., Univ. California, Davis, CA, 95616, USA

SO Science (Washington, DC, United States) (1984), 225(4660), 440-2  
CODEN: SCIEAS; ISSN: 0036-8075

DT Journal

LA English